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Monthly Statistical Report

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AUGUST 1991

SUMMARY

August's large decline in total deliveries was partly explainable by extraneous factors, but reflects a continued weakness in demand that has, as of yet, not been reversed by any recovery in the economy. A portion of August's unusually large drop in deliveries—at 6.4 percent, the largest so far this year—was due to comparison against a surge in deliveries a year ago. At that time, unusually strong deliveries for distillate and other products likely reflected precautionary purchases in light of developments in the Middle East following Iraq's invasion of Kuwait on August 2. That surge had been followed by a substantial dropoff in deliveries in the latter part of the year as the effects of higher petroleum prices and economic recession took hold.

Nevertheless, even without the year-ago surge, this August's deliveries would have still declined by roughly 3 percent. Similarly, distillate's 13.5 percent decline for August still would have been 4 to 5 percent, and gasoline's 4 percent drop would have been perhaps 3 percent. Thus, total deliveries' drop, even on an adjusted basis, displayed a weakness greater than the roughly 2 percent declines of the most recent prior months. It seems that the ambivalence in data on the rate at which the economy is recovering from the most recent recession—downward revisions in GNP versus continued positive indications from the leading indicators, for example—is being reflected in a corresponding wavering in deliveries data. Regardless of the exact trajectory of the economy over the past several months, recent years' data suggest that economic growth would have to exceed 2 percent before growth in petroleum demand would be observed.

Following several months of year-to-year increases, domestic crude oil production slipped 1.1 percent in August. The decline was entirely the result of a drop in lower 48 production, although Alaskan production equalled year-ago levels only because North Slope production then was temporarily depressed by field maintenance and enhancement projects.

Though total imports experienced their first year-to-year increase in twelve months and amounted to 51 percent of domestic deliveries for the month, the increase was essentially a reflection of contrasting inventory behavior this August versus last. With domestic deliveries declining and domestic production steady over the past several months, the underlying trend of imports has still been one of year-to-year declines.

Though input to refinery distillation units slipped 1.5 percent in August from a year ago, emphasis on gasoline production kept output of that product nearly even with a year ago while gasoline stocks continued near the lower end of their recent historical range. Crude stocks, however, though down from last August's higher-than-usual levels, were slightly above more typical levels for the month. Distillate stocks, at 128 million barrels, were up 6 million barrels from July and in line with typical ending levels for August.

PRODUCT SUPPLIED [1]

Gasoline

DELIVERIES WEAKEN. Gasoline deliveries' uncommon strength over the past several months dissipated markedly in August. Following the May-July period, which actually averaged a surprising 0.7 percent higher than a year ago, August's deliveries dropped 4.0 percent—or around 3 percent if the comparison is made against a more typical level of deliveries for the year-ago-period.

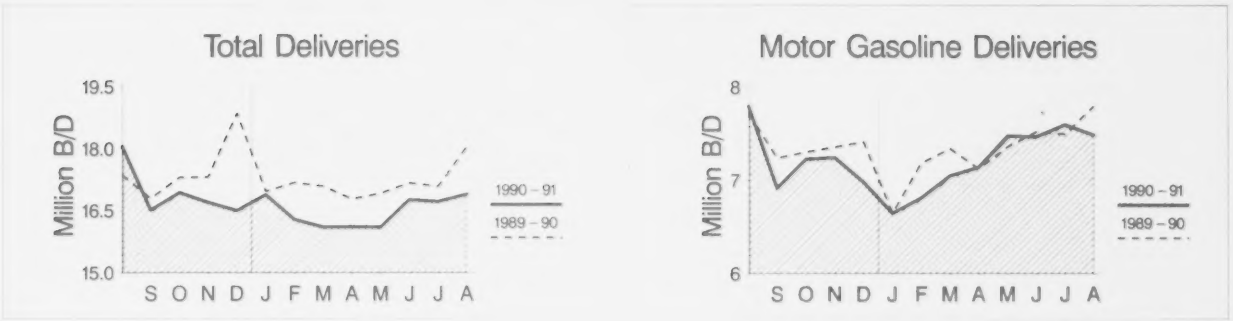
Additional data on travel add weight to the view that deliveries over the past several months, until August, were running above underlying consumption trends. The most recent data on miles traveled, for example, show a roughly 1 percent increase for June. This was slightly higher than in prior months, which had hovered around a half-percent or so.

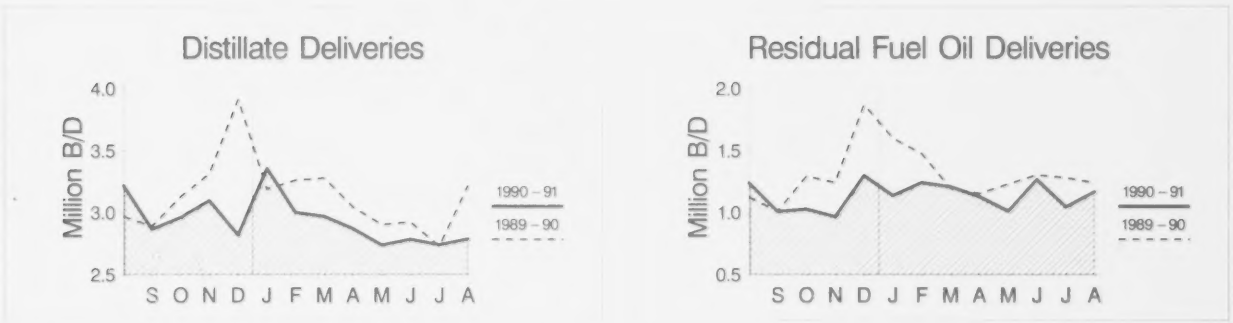
But with continued gains in average fuel efficiency, this figure would have still implied a decline in consumption of 1 or 2 percent, rather than the increase in deliveries actually observed. Compared against levels of consumption implied by the travel data, actual gasoline deliveries for May and June averaged more than 3 percent higher, and July's deliveries continued at that higher level. August's deliveries, however, appeared to return to levels more on trend with the data prior to May.

Distillates

YEAR-AGO SURGE EXAGGERATES AUGUST'S DECLINE. Due primarily to the crisis-related surge in deliveries a year ago, distillate fuel supplied fell a sharp 13.5 percent during

	API ESTIMATES AUGUST		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.9	(6.4)	16.5	(3.9)
Crude production[2]	7.2	(1.1)	7.4	0.6
Total imports[3]	8.6	0.9	7.6	(10.7)
Stocks (million bbl)[3]	1,091	(1.6)	na	na





August. However, even adjusting for that surge, deliveries would have been down about 4 percent, year to year for the month—a slightly larger drop than underlying consumption indicators would suggest.

Mixed signals on trucking activity in recent months have made a trend in underlying diesel consumption difficult to decipher. Rebounding from a slight decline in June, trucking tonnage reportedly picked up sharply, year to year, during July. However, given the sensitivity of diesel demand to economic growth, July's tonnage increase is thought to have been anomalous. Even if the economy grew on a seasonally-adjusted basis during the month, economic activity was likely still down, year to year. Highway diesel demand, which during the summer accounts for about half of distillate deliveries, is estimated to have been flat at best during August. Rail demand, thought to have been down more than 4 percent during the first seven months of the year, was about flat in August as well, as rail ton-miles matched year-ago levels for the first time in almost a year.

Diesel fuel consumption has been down more than gasoline during the recent recession because of different usage patterns. While a substantial portion of gasoline usage is tied to personal transportation (estimated at about 80 percent), most of the diesel fuel consumption is more directly tied to economic activity—transporting everything from agricultural and processed food products, building materials, petroleum products, manufactured products, and more—and accounting for a quarter of intercity freight.

Diesel vehicles account for only about 2 percent of the vehicle population, but about 15 percent of vehicle fuel use—the result of different usage patterns and vehicle size. The average passenger car travels roughly 10,000 miles per year, versus over 40,000 per year for diesels (excluding light-duty models). Since the most heavily-used diesel-powered vehicles on the road weigh ten times or more (empty) than the typical passenger car, it is not surprising that they get only about one fourth the number of miles per gallon. Diesel vehicles over 26,000 pounds account for about half of diesel trucks, 75 percent of diesel miles traveled and an estimated 90 percent of vehicle consumption of diesel fuel.

Residual Fuel Oil

HOT WEATHER BOLSTERS DEMAND. After a sharp decline in July, resid deliveries fell more moderately in August. At 5.8 percent, the year-to-year decline for the month was comparable to the trend during the second quarter of the year. While warmer weather and nuclear electric plant shutdowns supported demand for power generation in the East, buyer reaction to the new California sales tax on bunker fuels continued to work against demand.

A continuation of the heat wave in the resid-intense Mid-Atlantic region pushed cooling degree days up nearly 25 percent from last year. As a result, power generation in these states grew at about 4 percent, year to year. The higher temperatures came at the same time nuclear facilities in the Mid-Atlantic and in New England were scheduling downtime. Together, these factors are estimated to have contributed to an increase of perhaps 25 thousand B/D in resid purchases by utilities in the region.

Meanwhile, reaction to California's July 15 extension of an 8.25 percent state/local sales tax to bunker fuels reportedly had a sizeable impact on bunker sales there during August. Because California represents roughly two-fifths of U.S. bunker fuel sales, (more than a quarter of which are thought to be loaded on vessels entering port specifically to take on fuel), the potential impact of the tax is not insignificant. It is unclear whether the decline in bunkerings during the month represents the beginning of an ongoing shift to other ports in the U.S. and abroad, or whether it results from short-term buyer resistance to the tax. Even with the tax,

prices in California remained competitive with prices in Singapore and Panama, suggesting that, given limited markets for resid in the U.S., refiners may have been forced to absorb much of the tax. It is unclear at this time whether the tax encouraged more resid exports.

Kerosine Jet Fuel

TRAVEL SHOWS SIGNS OF IMPROVEMENT. After falling by 5 percent over the year's first half, deliveries of kerosine jet fuel were up in August for the second consecutive month. While growth for the month, at less than 1 percent, was minimal, it came on top of above-trend deliveries a year ago. Evidence of a recovery in commercial air travel continues to build, but year-to-year growth in underlying consumption for the month is not likely, particularly given the record air travel in August 1990.

Industry traffic statistics have shown general improvement in passenger travel since March, but airlines have been able to absorb some of the additional passengers by filling otherwise empty seats. Load factors are thought to have picked up about 5 points (on a seasonally-adjusted basis) from war-time lows early in the year, and in recent months, have surpassed those of a year ago. A compilation of company traffic reports for August suggests that, among majors, miles-flown grew about 3-4 percent, year to year. However, when accounting for the absence of Eastern Airlines, miles-flown were likely flat, or down slightly, versus a year ago.

Thanks in part to declines in air mail, air cargo shipments have continued to be weak. Up nearly 5 percent in 1990, air mail shipments have declined at a comparable rate thus far in 1991. And while moderating in the past month or two, the declines nonetheless continue. As a result, air freight, which accounts for roughly a quarter of all air ton-miles, has been up less than one percent in recent months, after growing at double digit rates during the late 1980s.

Other Oils

DOWN 7 PERCENT FROM STRONG YEAR-AGO LEVELS. Deliveries of "other oils" dropped 7.0 percent for the month, and, as in July, mainly reflected unusually strong deliveries a year ago. We estimate that, without the short-term fluctuations in both this year's and last year's series, the year-to-year decline in deliveries of "other oils" over the past several months would have been only 1 to 2 percent.

Deliveries of "other oils" are traditionally at their seasonal high during August through October, as deliveries of asphalt, though declining from their summer peak, remain reasonably strong at a time when deliveries of propane are picking up in anticipation of the winter heating season. The net result is a typical autumn pattern of deliveries of "other oils" about 10 percent higher than the seasonal low in the spring. This pattern typically adds about 2 percent or 400 thousand B/D to total petroleum deliveries during the fall compared with the spring.

SUPPLY [1/]

Production

DECLINE RESUMES. Domestic crude oil production dropped 1.1 percent, or 83 thousand B/D, in August following three months of year-to-year increases. In the lower 48, production slipped 1.5 percent to less than 5.5 million B/D. Alaskan production, though matching levels which had been temporarily depressed by field maintenance and enhancements a year ago, was down about 100 thousand B/D from July. Part of the drop was due to temporary slowdowns in pipeline flow necessitated by the replacement of an 8.5 mile section of pipeline about 160 miles south of Prudhoe Bay as part of a corrosion control program.

Imports

UP FOR FIRST TIME IN TWELVE MONTHS. In contrast to a year-to-year decline of more than one million B/D in July, total imports were up nearly 80 thousand B/D, or 0.9 percent, in August versus a year ago. It was the first year-to-year increase in twelve months, and brought the import share of domestic demand to 51.1 percent. However, just as smaller-than-typical stock builds during July had manifested themselves in below-trend imports for that month, larger-than-typical stock builds during August contributed to the imports increase. Given the continued increase in liquids production and decline in deliveries, the underlying need for imports remained lower than a year ago. Had inventories behaved more typically for the month, we estimate imports of about 8.2 million B/D would have been required, compared to the roughly 9.1 million B/D required last August, if estimated in a comparable manner.

Higher imports of crude, up 325 thousand B/D from last August, accounted for the year-to-year growth in total imports. At nearly 6.7 million B/D, crude imports approached levels among their highest since North Slope production came on line in 1977.

While product imports continued to pick up from February's low of about 1.35 million B/D, they were still down on a year-to-year basis in August. Their roughly 250 thousand B/D, or 11.3 percent drop for the month was less than half the rate of decline seen during the first seven months of 1991. A sharp drop in imports of distillate fuels, due in part to weak demand, accounted for nearly two-thirds of this decline. Gasoline imports actually increased, and imports of jet fuel and residual fuel were each off by less than 10 percent. Imports of diesel and heating fuels dropped 154 thousand B/D to 139 thousand B/D—with the exception of February, their lowest monthly level in 6 years. Finished motor gasoline imports increased 22 thousand B/D to 335 thousand B/D; jet kerosine imports fell 6 thousand B/D to 75 thousand B/D; and resid imports fell 46 thousand B/D to 528 thousand B/D.

Refinery Operations

INPUT SLIPS BUT GASOLINE OUTPUT CLOSE TO YEAR AGO. Emphasis on gasoline production continued in August, with output of that product nearly matching that of a year ago despite a 1.5 percent drop in input to distillation units. Distillate fuel oil output, in contrast, fell nearly 5 percent from last August's unusually strong levels that had paralleled the surge in that product's deliveries. Production of residual fuel oil roughly equaled that of a year ago. Output of kerosine jet fuel, deviating from a pattern made up mostly of declines in recent months, rose 4.8 percent.

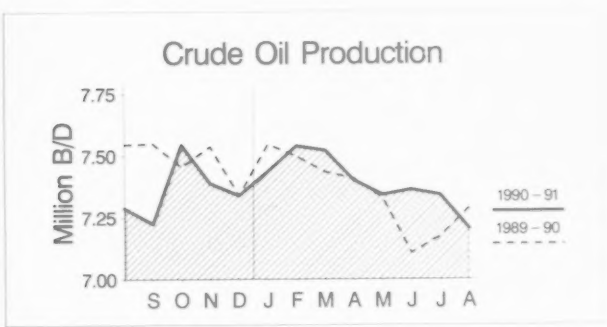
Utilization of capacity in operation averaged in the low 90s for August, down from nearly 95 percent a year ago. On the basis of

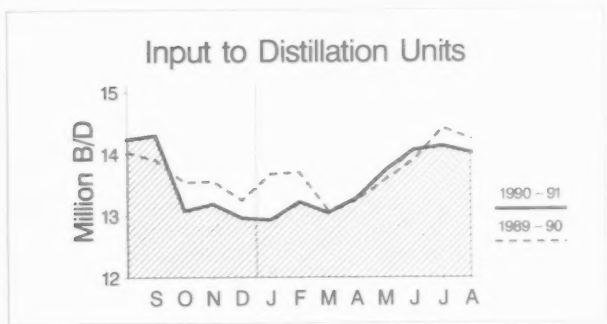
reported capacity, utilization for the month is calculated at 89.2 percent.

Inventories

DISTILLATE RISES DURING AUGUST, GASOLINE STEADY. August's 19 million barrel increase put total stocks at 1,091 million barrels, or slightly above the average of recent prior Augusts. Gasoline inventories held steady, nearly matching year-ago levels at 211 million barrels and continuing near the lower end of their observed range of recent years. Crude oil stocks, on the other hand, though down 21 million barrels from last August's unusually high levels, at 348 million barrels, were still above the 330-340 million barrel range typical of August for recent prior years.

Distillate inventories' 128 million barrel level, up 6 million barrels during the month, were typical for the end of August. Despite the attention often focused on distillate inventories as the winter heating season approaches, stocks have played a relatively minor role in distillate supply in recent years. For the previous five October-March periods, inventory draws have accounted for 6 percent of supplies, while net imports have accounted for about 5 percent. The bulk of supplies, 89 percent, has come from current refinery output.





1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of August 31, 1991).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	AUGUST			YEAR-TO-DATE		
	1991[1]	1990[2]	% Change	1991[3R]	1990[2]	% Change
Products Supplied:						
Total motor gasoline	7,485	7,796	(4.0)	7,211	7,308	(1.3)
Finished leaded motor gasoline/*	304	412	(26.2)	277	424	(34.7)
Finished unleaded motor gasoline/*	7,181	7,384	(2.7)	6,934	6,884	0.7
Naphtha-jet	205	189	8.5	179	179	0.0
Kerosine-jet	1,371	1,363	0.6	1,280	1,325	(3.4)
Distillate fuel oil	2,784	3,218	(13.5)	2,903	3,065	(5.3)
Residual fuel oil	1,166	1,238	(5.8)	1,147	1,306	(12.2)
All other oils[4]	4,181	4,498	(7.0)	4,024	4,078	(1.3)
Reclassified[5]	-296	-251	17.9	-260	-107	143.0
Total domestic products supplied	16,896	18,051	(6.4)	16,484	17,154	(3.9)
Exports	1,037	850	22.0	1,044	776	34.5
Total products supplied	17,933	18,901	(5.1)	17,528	17,930	(2.2)
Supply:						
Domestic production:						
Crude oil[6]	7,204	7,287	(1.1)	7,391	7,346	0.6
Natural gas liquids	1,728	1,575	9.7	1,660	1,518	9.4
Other supply[7]	972	1,056	(8.0)	1,074	956	12.3
Total domestic supply	9,904	9,918	(0.1)	10,125	9,820	3.1
Imports:						
Crude oil, total[8]	6,682	6,357	5.1	5,855	6,243	(6.2)
Canadian	719	676	6.4	757	635	19.2
Other	5,963	5,681	5.0	5,098	5,608	(9.1)
Products, total	1,945	2,192	(11.3)	1,779	2,307	(22.9)
Residual fuel oil	528	574	(8.0)	423	559	(24.3)
Other	1,417	1,618	(12.4)	1,356	1,748	(22.4)
Total imports	8,627	8,549	0.9	7,634	8,550	(10.7)
Total supply	18,531	18,467	0.3	17,759	18,370	(3.3)
Stock change, all oils	598	-434	******	231	440	******
Refinery Operations						
Input to crude oil distillation units	14,016	14,234	(1.5)	13,580	13,728	(1.1)
Operable capacity	15,708	15,701	0.0	15,757	15,599	1.0
Refinery utilization (%)[9]	89.2	90.7	(1.7)	86.2	88.0	(2.0)
Crude oil runs	13,878	14,142	(1.9)	13,332	13,544	(1.6)

Stocks (millions bbls.)	1991		1990[2]	% Change from	
	Aug. 31[10]	Jul. 31[10]	Aug. 31	Previous month	Year Ago
Crude oil[8]	348.3	345.9	369.5	0.7	(5.7)
Unfinished oils	109.6	110.5	110.8	(0.8)	(1.1)
Total motor gasoline/**	210.6	210.6	209.7	0.0	0.4
Finished leaded motor gasoline/*	6.5	7.5	10.5	(13.3)	(38.1)
Finished unleaded motor gasoline/*	167.6	164.7	161.9	1.8	3.5
Naphtha-jet	5.1	5.7	5.7	(10.5)	(10.5)
Kerosine-jet	42.4	42.7	42.7	(0.7)	(0.7)
Distillate fuel oil	127.6	121.6	129.8	4.9	(1.7)
Residual fuel oil	46.3	45.4	49.0	2.0	(5.5)
All other oils	201.2	190.1R	191.7	5.8	5.0
Total all oils	1,091.1	1,072.5R	1,108.9	1.7	(1.6)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-June, DOE, July-August, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.